Amendment to the Claims

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Original): A block encoding method, comprising steps of:

forming an original block group having n+1 original blocks of m-bit message, "m" being a positive integer and "n" being an odd integer greater than "m";

encoding a first original block of m-bit message of the original block group to a reference block of n-bit codeword; and

encoding n original blocks of m-bit message placed after the first original block of m-bit message in the original block group to generate n weighted blocks of n-bit codeword, each of which corresponds to an A type weighted block or a B type weighted block, depending on a bit sequence of the reference block.

2. (Original): The method of claim 1, wherein the reference block of n-bit codeword is an A type weighted block.

3. (Original): The method of claim 2, wherein a bit of "1" in the reference block corresponds to an A type weighted block.

4. (Original); The method of claim 3, wherein a bit of "0" in reference block corresponds to a B type weighted block.

5. (Original): The method of claim 1, wherein if the original block group is a $(2N-1)^{st}$ original block group, the reference block of n-bit codeword is an A type weighted block, "N" being a positive integer.

6. (Original): The method of claim 5, wherein if the original block group is a $2N^{th}$ original block group, the reference block of n-bit codeword is a B type weighted block.

7. (Currently Amended): The method of claim 6, wherein ~~thea~~ a bit number "a" of bit "1" in an A type weighted block of n bits satisfies a relation $2^m < {}_nC_a$, "a" being a positive integer, and the bit number of "1" in a B type weighted block of n bits is given by "n-a".

8. (Currently Amended): A block decoding method, comprising the steps of:

forming a coding group having n weighted blocks of n-bit codeword, "n" being an odd integer;

generating a sequence of reference bits from the n weighed blocks of n-bit codeword, wherein each reference bit implies that a corresponding weighted block is an A type weighted block or a B type weighted block;

decoding the n weighted blocks of n-bit codeword of the coding group to generate n corresponding original blocks of m-bit message; and

reconstructing a first original block of m-bit message from the sequence of the reference bits.

9. (Original): The method of claim 8, wherein the sequence of the reference bits is identical to a bit sequence of a reference block of n-bit codeword, which is generated by encoding the first original block of m-bit message.

10. (Original): The method of claim 9, wherein a bit of "1" in the reference block represents an A type weighted block.

11. (Original): The method of claim 10, wherein a bit of "0" in the reference block represents a B type weighted block.

12. (Original): The method of claim 8, wherein if the coding group is a $(2N-1)^{st}$ coding group, the reference block is an A type weighted block.

13. (Original): The method of claim 12, wherein if the coding group is a $2N^{th}$ coding group, the reference block is a B type weighted block.

14. (Currently Amended): The method of claim 8, wherein ~~thea~~ a bit number "a" of bit "1" in an A type weighted block of n bits satisfies a relation $2^m < {}_nC_a$, "a" being a positive integer, and the bit number of "1" in the B type weighted block of n bits is given by "n-a".

15. (Original): A block encoding/decoding apparatus, comprising:

a buffering device for outputting a digitalized image signal on a basis of an original block of m-bit message and generating a timing signal for notifying when the original block is outputted, "m" being a positive integer;

a first control part for determining whether the original block is a first original block of m-bit message when the timing signal is first generated from the first buffer;

an encoding part for encoding, if the original block is the first original block, the first original block as a reference block of n-bit codeword, and if otherwise, encoding the original block as a weighted block of n-bit codeword, which is represented as an A type weighted block of n-bit codeword or a B type weighted block of n-bit codeword, under a control of the first control part based on a bit sequence of the reference block, "n" being an odd integer larger than "m";

a switch for transmitting the reference block to the first control part and transmitting the weighted block to a storage medium;

a buffer having a reference buffer for storing a sequence of reference bits, wherein each reference bit implies whether the weighted block is an A type weighted block or a B type weighted block, and n buffers for storing bits of the weighted block provided from the storage medium;

16. (Original): The apparatus of claim 15, wherein the first control part has a counting unit for counting the number of the timing signal provided from the first buffer.

17. (Original): The apparatus of claim 16, wherein the counting unit is reset on receiving an $(n+1)^{th}$ timing signal generated from the first buffer.

18. (Original): The apparatus of claim 15, wherein the reference block of n-bit codeword is an A type weighted block.

19. (Original): The apparatus of claim 18, wherein a bit of "1" in the reference block corresponds to an A type weighted block.

20. (Original): The apparatus of claim 19, wherein a bit of "0" in the reference block corresponds to a B type weighted block.

21. (Original): The apparatus of claim 15, wherein the sequence of the reference bits is identical to the bit sequence of the reference block.

22. (Currently Amended): The apparatus of claim 15, wherein ~~thea~~ a bit number "a" of bit "1" in an A type weighted block of n bits satisfies a relation $2^m < {}_nC_a$, "a" being a positive integer, and the bit number of "1" in a B type weighted block of n bits is given by "n-a".